

Claims

1. Electrical cable (K) having at least one core (1, 2, 3) including a conductor (1) and an insulation (2, 3) surrounding said conductor (1) and comprising at least two insulation layers (2, 3), characterized in that a first one of said layers (2) comprises a silicone rubber compound and a second one of said layers (3) comprises an ethylene(C<sub>2</sub>)-alkylene(C<sub>x</sub>)-copolymer or terpolymer mixture adapted to have properties corresponding to those of a hardgrade-ethylene-propylene-rubber (H-EPR).
2. Electrical cable (K) according to claim 1, characterized in that said second layer (3) comprises hardgrade-EPR.
3. Electrical cable (K) according to claim 1, characterized in that said silicone rubber compound comprises a hard ash forming silicone rubber.
4. Electrical cable (K) according to claim 1, characterized in that said second layer (3) comprises an ethylene(C<sub>2</sub>)-propylene(C<sub>3</sub>)-copolymer or terpolymer mixture, an ethylene(C<sub>2</sub>)-hexene(C<sub>6</sub>)-copolymer or terpolymer mixture or an ethylene(C<sub>2</sub>)-octene(C<sub>8</sub>)-copolymer or terpolymer mixture.
5. Electrical cable (K) according to claim 1, characterized in that said first layer (2) is arranged on said conductor (1) and said second layer (3) is arranged on said first layer (2).

6. Electrical cable (K) according to claim 1, characterized in that said second layer (3) is arranged on said conductor (1) and said first layer (2) is arranged on said second layer (3).
7. Electrical cable (K) according to claim 1, characterized in that a cross sectional area of said conductor (1) is in the range of  $1.5 \text{ mm}^2$  to  $300 \text{ mm}^2$  if said cable (K) comprises 1 to 5 wires and is in the range of  $1.5 \text{ mm}^2$  to  $4 \text{ mm}^2$  if said cable (K) comprises 6 to 30 wires.
8. Electrical cable (K) according to claim 1, characterized in that a cross sectional area of said conductor (1) is  $1.5 \text{ mm}^2$ , a thickness of said first layer (2) is 0.3 mm and a thickness of said second layer (3) is 0.4 mm.
9. Electrical cable (K) according to claim 1, characterized in that said electrical cable (K) has properties which allow the cable to conform with a burn test according to the German DIN standard DIN 4102 section 12.
10. Electrical cable (K) according to claim 1, characterized in that said first layer (2) is made from a silicone compound which forms hard ashes during a burn test process.
11. Electrical cable (K) according to claim 1, characterized by a plurality of cores (1, 2, 3), a inner sheath (4) surrounding said plurality of cores (1, 2, 3) and an outer sheath (5) provided on said sheath (4).
12. Electrical cable (K) according to claim 11, characterized in that a further conductor (5) is provided under said outer sheath (6).

13. Electrical cable (K) according to claim 12, characterized in that said further conductor (5) comprises a plurality of copper filaments (5).
14. Electrical cable (K) according to claim 1, characterized in that said electrical cable (K) is a communication cable (K).
15. Electrical cable (K) according to claim 1, characterized in that said electrical cable (K) is a power cable (K).
16. Electrical cable (K) according to claim 1, characterized in that said conductor (1) is made of copper or silver or aluminium.
17. A method for making an electrical cable (K), comprising the following steps:
  - providing a conductor (1);
  - forming an insulation (2, 3) comprising at least a first insulation layer (2) and a second insulation layer (3) on said conductor (1);

*characterized in that*

- in said step b) a silicone rubber compound layer (2) is formed as said first insulation layer (2);
- in said step b) a layer (3) of an ethylene(C<sub>2</sub>)-alkylene(C<sub>x</sub>)-copolymer or terpolymer mixture is formed as said second insulation layer (3);
- wherein said ethylene(C<sub>2</sub>)-alkylene(C<sub>x</sub>)-copolymer or terpolymer mixture is provided to have properties

corresponding to those of a hardgrade-ethylene-propylene-rubber (H-EPR).

18. A method according to claim 17, characterized in that said second layer (3) comprises hardgrade-EPR.
19. A method according to claim 17, characterized in that said silicone rubber compound comprises a hard ash forming silicone rubber.
20. A method according to claim 1, characterized in that said second layer (3) comprises an ethylene(C<sub>2</sub>)-propylene(C<sub>3</sub>)-copolymer or terpolymer mixture, an ethylene(C<sub>2</sub>)-hexene(C<sub>6</sub>)-copolymer or terpolymer mixture or an ethylene(C<sub>2</sub>)-octene(C<sub>8</sub>)-copolymer or terpolymer mixture.
21. A method according to claim 17, characterized in that in said step b) said first layer (2) is formed on said conductor (1) and said second layer (3) is formed on said first layer (2).
22. A method according to claim 17, characterized in that i said step b) said second layer (3) is formed on said conductor (1) and said first layer (2) is formed on said second layer (3).
23. A method according to claim 17, characterized in that in said step b) said first layer (2) and said second layer (3) is formed on said conductor (1) by means of an extrusion step.

24. A method according to claim 23, characterized in that said first and second layer (2, 3) are extruded on said conductor (1) simultaneously.
25. A method according to claim 17, characterized in that a plurality of cores (A; 1, 2, 3) are formed, a sheath (4) embedding said plurality of strands (A; 1, 2, 3) is (5) formed on said sheath (4) formed around said wires (A; 1, 2, 3) and an outer sheath.
26. A method according to claim 25, characterized in that a further conductor (5) is formed on said inner sheath (4) before said outer sheath (6) is formed.